

III. REMARKS

In the Office Action, objections were made to claim 1, and claim 1 is amended to overcome the grounds of the objections. Claims 1-6 were rejected under 35 U.S.C. 103 as being unpatentable over Ostrup (US 6,292,664) in view of Dahlin (US 5,182,753) for reasons set forth in the Action.

The following argument is presented to show the presence of allowable subject matter in the claims.

The Examiner's primary reference, Ostrup, does not disclose all the aspects of the present invention. As acknowledged by the examiner (bottom of page 3 of the Action), Ostrup does not disclose the transforming of blocks of information into a different number of bursts, the checking if retransmission is requested, and the subsequent transmission of another number of bursts. The examiner combines the teachings of Dahlin with Ostrup to provide the missing disclosure. In Ostrup, the essential disclosure related to the present invention is that there may be full-, half- and quarter rate traffic channels. Ostrup never mentions the concept of a control channel (indeed it does not contain a single occurrence of any of the words "control" or "signalling"), and even less considers how time slots should be allocated for such control channels (or even to any channels). Of course the fact that there might be full-, half- and quarter rate traffic channels has been known at least from the early times of GSM.

In order to insure that the examiner considers the aspect of "control channel" in the present invention, each of the independent claims 1 and 4 is amended to include "control

channel" in the body of the claim, even though "control channel" appears in the preamble of the claim, as originally filed.

It is urged that the combined teachings of Dahlin and Ostrup do not suggest the present invention, and that there is no motivation to combine these two references. A passage in Dahlin (column 6 at lines 60-65 in conjunction with Fig. 4), relied upon by the examiner to support the examiner's position, appears to teach away from the present invention because the beginning of the cited passage (at line 54) states that Fig. 4 illustrates an exemplary traffic channel. However, the present invention as claimed is directed to the transforming of a control information block in a control channel rather than in a traffic channel.

Thus, it appears that Dahlin does not adequately support the Examiner's argument even though Dahlin mentions signalling and control channels, and even SACCH; but the disclosure Dahlin is limited to the facts that a SACCH exists, a coding and decoding method has been defined for it, and handoff requests and other important messages may be retransmitted on SACCH until an acknowledgement has been received.

An essential feature of the present invention is that the SACCH information, which is designated as the "control information block" in the claims, is handled in the very well known and established way in association with full- and half-rate traffic channels but handled differently for quarter-rate traffic channels. In full- and half-rate traffic channels, the "control information block" is transformed to a first number of bursts, which are all transmitted. In quarter-rate traffic channels, the "control information block" is transformed to a second, smaller number of bursts, and an attempt follows still to get the whole control information block through by using only the smaller

number of bursts. Only if this does not succeed, but a retransmission request is received, more (redundant) information derived from the same control information block is transmitted.

This feature of handling the "control information block" differently is completely absent from any of the cited references. It is not found in Ostrup because he does not consider transmitting any control information at all. Dahlin suggests transmitting control information on a SACCH, but Dahlin does not teach a difference in the handling of such control information in situations of differing rates of the associated traffic channel based on the differing rates. A mentioning of the repetition of handoff requests is not relevant, since handoff requests must be made (and consequently also repeated) independently of whether the associated traffic channel has full, half or quarter rate.

The failure of Dahlin to distinguish between the handling of such control information in dependence on different rates of the associated traffic channel is significant because there is no suggestion in Ostrup to alter control information in a control channel to accommodate different rates of traffic in a traffic channel. An attempt to find this relationship in the combination of the teachings of Ostrup and Dahlin relies on hindsight because there is no motivation in either of these references to combine their teachings to develop the foregoing relationship from a combination of their teachings.

Therefore, it is urged that the Examiner's opinion that it is obvious to transform an information block of fixed size in a control channel into a second number of bursts smaller than a first number of bursts, in dependence on a rate of traffic in a traffic channel, is not supported by the teachings of the cited

art. It is emphasized that the present claims address a transforming of a **control** information block of fixed size in a control channel to a first or a second number of bursts **depending on the rate of the associated traffic channel**. It appears that Dahlin only discloses the transforming of a control information block of fixed size to a number of bursts. This is also what has been described as existing prior art in the background section of the present specification. Both Ostrup and Dahlin fail to suggest that the number of bursts used as a first attempt to transmit a control information block should vary depending on the rate of the associated traffic channel.

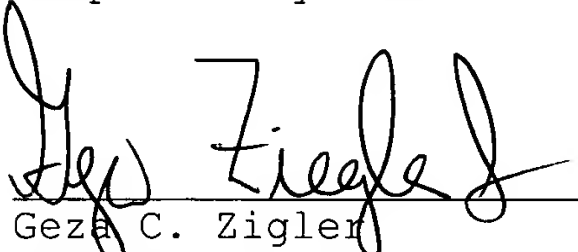
In view of the foregoing argument, it is urged that the present amendment to the claims has overcome the rejections under 35 U.S.C. 103 so as to secure allowable subject matter in the claims.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.



A check in the amount of \$450 is enclosed for a two-month extension of time and additional claim fees. The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,


Geza C. Zigler
Reg. No. 44,004

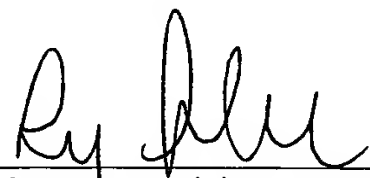
8 July 2005
Date

Perman & Green, LLP
425 Post Road
Fairfield, CT 06824
(203) 259-1800
Customer No.: 2512

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